## Message

From: Ellis, Todd [todd.ellis@nebraska.gov]

**Sent**: 5/11/2016 6:52:10 PM

**To**: Bertram, Gary [Bertram.Gary@epa.gov]

CC: Terriquez, Joe [terriquez.joe@epa.gov]; Werner, Leslye [Werner.Leslye@epa.gov]

Subject: RE: Well Reads

I believe they do the sampling themselves. I got a note from Chris and for the air part, he gave the same monitoring parameters that we've asked them to do except he also had N2 on his list. He also said he would have them add additional clay to the cover or a membrane.

Todd

From: Bertram, Gary [Bertram.Gary@epa.gov] Sent: Wednesday, May 11, 2016 10:39 AM

To: Ellis, Todd

Cc: Terriquez, Joe; Werner, Leslye

Subject: RE: Well Reads

Todd - Thanks for the update.

BTW – The "pyrolysis" event is exactly what we were concerned might be occurring. Technically, calling it a subsurface fire may not be the appropriate term for the sole reason that no flames are present...but the term is commonly used to describe a subsurface burning/heating event. Landfill operators prefer to use a term of art other than "fire" to describe what is happening (most likely because of the public's image of what may be occurring if it is described as a fire). Thus far I've heard it described as pyrolysis, subsurface heating event, subsurface oxidation event, and a subsurface smoldering event. But, they all mean the same thing...subsurface ignition and consumption of the landfill materials.

I'd be interested in Chris' reaction, especially since he is currently involved with a landfill experiencing a "subsurface smoldering event".

I'm also curious. Does Butler County monitor the landfill? Or do they hire a consultant?

Take Care,

Gary Bertram U.S. EPA - Region 7 11201 Renner Blvd Lenexa, KS 66219

913-551-7533

From: Ellis, Todd [mailto:todd.ellis@nebraska.gov]

**Sent:** Tuesday, May 10, 2016 2:14 PM

**To:** Bertram, Gary <Bertram.Gary@epa.gov> **Cc:** Terriquez, Joe <terriquez.joe@epa.gov>

Subject: RE: Well Reads

We had a call with them yesterday. They believe they have a "pyrolysis" event, not a fire. They believe if they can vent the heat and pressure, they will start to see better gas values (methane and CO2) and lowering balance gas and CO. They are going to send us summary reports every two weeks on well adjustments and well readings. They are also going to make sure the landfill cover isn't letting any air in. We're going to the MECC conference in Overland park this week and have set up a meeting with Chris Nagel from Missouri to get his input as well.

Thanks again for your help Gary. We'll keep sending you updates as we receive them.

Todd

From: Bertram, Gary [mailto:Bertram.Gary@epa.gov]

Sent: Tuesday, May 10, 2016 1:49 PM

To: Ellis, Todd Cc: Terriquez, Joe

**Subject:** RE: Well Reads

Todd – Thanks. It's only three months of data, but the high temperature, low oxygen, low methane and elevated CO are definitely a concern.

Take Care,

Gary Bertram U.S. EPA - Region 7 11201 Renner Blvd Lenexa, KS 66219

913-551-7533

From: Ellis, Todd [mailto:todd.ellis@nebraska.gov]

**Sent:** Thursday, May 05, 2016 10:16 AM **To:** Bertram, Gary < <u>Bertram.Gary@epa.gov</u>>

Subject: FW: Well Reads

Hi Gary,

Sorry it's been a while since we've given an update. I've attach a more comprehensive data file from them. There has been more testing data submitted but it hasn't always been the same wells so I asked them for this. I'll also going to be sending you a site map I requested a week or so ago so it helps put things into perspective about site locations of the wells. Anyway, the facility finally did CO testing yesterday and a repeat is happening today. There was a 1000 ppm reading in well 23, well 22 had an 800 ppm, and two other wells had 400-500 ppm. We haven't gotten a report yet, we were just on site yesterday and observed some of those. I think if today's results show similar levels, our waste section is going to request an action plan on addressing an event. A site map is on its way next. Let me know if you have any questions.

Todd

From: Kelly Danielson [mailto:KellyD@WasteConnections.com]

**Sent:** Wednesday, May 04, 2016 8:53 AM

**To:** Ellis, Todd; Prenosil, Erik

Cc: 'Stutz, Matt'; Geoff Strack; David Payne

Subject: RE: Well Reads

Here you go.

From: Ellis, Todd [mailto:todd.ellis@nebraska.gov]

Sent: Wednesday, May 04, 2016 8:29 AM

To: Kelly Danielson; Prenosil, Erik

Cc: 'Stutz, Matt'; Geoff Strack; David Payne

Subject: RE: Well Reads

Kelly,

Do you have a spreadsheet that has all the well readings in it? Going back over the data submitted so far, we have several wells that don't appear on every sheet. In particular, I'll looking for all readings on wells, 21-28.

Thank you,

Todd

From: Kelly Danielson [mailto:KellyD@WasteConnections.com]

Sent: Tuesday, May 03, 2016 3:17 PM

To: Ellis, Todd; Prenosil, Erik

Cc: 'Stutz, Matt'; Geoff Strack; David Payne

Subject: FW: Well Reads

Today's well readings

From: Ryan Nelson [mailto:Ryan.Nelson@ariaenergy.com]

**Sent:** Tuesday, May 03, 2016 2:53 PM **To:** David Payne; Kelly Danielson

Subject: Well Reads

Ryan Nelson **Aria Energy** 3580 R Road David City, NE 68632 Office# 402-367-6248

Fax# 402-367-4834 Cell# 402-802-0206